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ABSTRACT

Primarily, vocational educators should work with business and industry to ensure that the vocational curriculum taught to youth and adults is relevant to consumer, life, and job skills. Trends that have curriculum implications for vocational education are fewer workers, growth in the service sector, constantly changing job skills, a majority of new workers from disadvantaged groups, and increased graduation requirements. Curriculum content and materials must be developed with these trends in mind, and the business and industry community that will hire the potential workers should provide assistance. Concerns regarding the use of business and industry representatives in curriculum development include educators' fear of involving business, industry, and military representatives; reluctance of business and industry to participate; and time consciousness. If business, industry, and military leaders are convinced that their efforts will make a difference in the educational process, they will contribute their time, expertise, and resources. Benefits from involving business and industry are active and effective advisory councils, realistic curriculum content and materials, students trained to do jobs that are needed, effective cooperative education programs, and identification of business and industry training needs. These needs include vocational students with basic skills and customized training. (YLB)

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WORKING WITH BUSINESS AND INDUSTRY: CURRICULUM IMPLICATIONS

First, let me express my appreciation to each of you for the excellent job being done by the national curriculum network. Your efforts have saved the states thousands, if not millions, of dollars. This is not a new statement to you, since the annual evaluation documents this fact. In the case of North Carolina, our efforts in developing a competency-based curriculum process have been greatly enhanced by the work of NNCCVTE (National Network for Curriculum Coordination in Vocational and Technical Education).

Second, I appreciate my first opportunity to meet with this group, especially in a state as beautiful as Oregon. This is my first trip to the state, but my friend, Monty Multanen, has already provided me with some real "southern" hospitality Northwestern style. Speaking of "southern," if some of you have trouble understanding me, Meg Murphy has agreed to serve as an interpreter. I have been told that I have an accent, but to be honest with you, it is the other people who sound peculiar to me.

Now, let's get down to the subject at hand. Your theme "Curriculum Networking: Thriving on Change" is very appropriate. That is what the network is all about. I appreciate the fact that you identified a topic for me that I know a little something about. That is "Working with Business and Industry." However, I must admit that with the recent publicity out of Washington, DC, it would not surprise me if you had invited someone from the Pentagon. Since the topic can be a broad based one and we cannot discuss all of its avenues, I will concentrate on the area of curriculum implications. You can be sure that many of the points which I cover will already be known to you. Therefore, I do not stand before you as an expert in the field of working with business and industry. However, in my 30 plus years as a business person and a vocational educator, I have had the good fortune to work with many business and industrial leaders. There are four things that I learned early on from business and industry leaders. They want you to: (1) listen,(Don't go in with preconceived ideas of need.) (2) be capable of responding quickly, (Educators have trouble with this at times.) (3) minimize red-tape procedures and complicated decision-making channels, (not an easy task) and (4) be flexible (willing to look at new ideas and do things differently). If you do not remember anything else from this talk, remember these four points and validate them with your business/industry contacts. Therefore, my remarks will not be theoritical in nature but those of a practitioner. Our business and industry leaders in North Carolina have been beneficial to the salvation and advancement of vocational education.

By Clifton B. Belcher, State Director of Vocational Education, North Carolina, at the Annual Concurrent Meeting of The National Network for Curriculum Coordination in Vocational and Technical Education, Portland, Oregon, July 10-13, 1988.

As vocational educators, why are we even interested in working with business and industry? I know that you are saying to yourselves, "What a dumb question." The primary purpose is to be sure that the vocational curriculum taught to youth and adults is relevant to the consumer and practical life skills needed and, especially, to the job skills to be performed. For the past few years, we have seen a great wave of negativeness in our nation, particularly where declining productivity and poor worker quality is concerned. Education has been receiving a lot of the blame for this. I am not sure that this blame has been justified. However, the concerns should cause us to stop and evaluate what we are doing. This is what you are about here, and I commend you for that.

There is truly a need for us to enhance our linkage with business, industry, and more recently, the military. North Carolina has been very successful in working with the U.S. Army to procure state-of-the-art technical curriculum in many areas but , especially in the area of electronics. This relationship has not come easy. It has taken us seven years to work through the maze, but the benefits have been worth the time invested. Time does not allow for an explanation of the details, but Meg Murphy or I will be happy to discuss North Carolina's experience with you individually.

In its publication, GAINING THE COMPETITIVE EDGE, the American Society for Training and Development (another acronym ASTD) recommended the following:

1. Create educator/employer council linkages.
2. Link the teaching of academic subjects to practical applications.
3. In addition to reading, writing, and arithmetic, teach individuals how to make decisions, how to think a job through from start to finish, and how to get work done with and through other people.

I think this establishes the basis for trends which will impact on vocational education and the curriculum offered. This statement does not reduce the need for occupational content, it simply enlarges on what is needed to make this content more relative.

Let's look at some trends that will have curriculum implications for vocational education. Obviously, this will not be a comprehensive list nor many of them new to you. From your individual positions, many more can be included. These trends are what make your theme and program this week so important.

1. Fewer workers are predicted by the year 2000. If this is the case, future economic growth will be dependent on increased productivity.
2. With a projected decline in goods-producing industries, productivity growth will have to come from the service sector.
3. Job skills will be constantly changing; therefore, new productivity imperatives will require a better trained workforce.
4. Demographics will play a key role in workforce preparation as the majority of new workers will come from the most potentially educationally disadvantaged groups such as minorities, those with handicapping conditions, and immigrants. The increase in the number of women entering the workforce will also have a major impact. We need to also remember the potential pool of older persons who are retired or otherwise out of the workforce but who could be brought

back in, especially in the service industries. This may become a critical trend. I assume that Dr. Banks will be talking on this topic during his presentation on multicultural education.

5. Small businesses are projected to generate most of the new jobs. These will be businesses and industries without formal training programs.
6. Increased high school graduation requirements will reduce the amount of time for teaching occupational competencies, thereby, making the infusion of basic and vocational skills even more important. Let me digress here to share a specific from North Carolina. Because of these requirements, we are finding a larger proportion of students enrolling in vocational education courses for the first time in their senior year. This means that we do not have these students for the three- and four-year vocational sequences normally taken by students. The question is, "Do we deny them an opportunity to participate in vocational education?" or do we adjust our curriculum to provide a one-year, indepth, concentrated course? If the latter is true, what are the critical competencies? Can business and industry advise us on this?
7. A major thrust by states to discover and implement tech-prep programs.
8. Shifting postsecondary enrollments--again in North Carolina, we are seeing the impatience of adults to get into the labor market. There has been a decline in community colleges' two-year "curriculum" students, but a significant increase in what I will call "short-term" students, or probably better known as adult supplementary.

There are many more trends, but this will suffice for the purpose of this presentation. The bottom line is simply that in those former years when agricultural and industrial production was king, the ability to sign one's name was all the literacy one needed. Now and in the future, however, our curriculum must be geared to skills needed to access training or jobs that pay a living wage and have a future. Curriculum content and materials must be developed with these trends in mind, especially those related to the disadvantaged, handicapped, women, and immigrants.

This expertise can in part come from working with the business and industry community which will hire these potential workers. This assistance will not necessarily come easy. It definitely will not be an event, but will require an extensive and intensive process. This is probably not news to anyone in the room. There are many positives which come from working with business and industry representatives, but oftentimes, there are concerns which must be overcome.

What are some of those concerns to the utilization of business and industry representatives in curriculum development? Again, I will not be all inclusive.

1. Educators' reluctance (or fear) of involving business, industry, and military representatives. I am continually amazed at this. There are many reasons for this--fear of criticism of what now is, awe of the business world, concern about one's own expertise in the field, and I could go on. However, there is one thing for sure. If collaboration is to occur, it is the educator's role and

responsibility to initiate it. Although, what we do benefits business and industry. It is our game, we cannot expect them to initiate play for us.

2. Concern on the part of business and industry representatives to participate. Many times, this is based on the same fears as those held by educators. Many business and industry people hold educators in awe. They do not understand the education system. The language of the two systems is different. Our acronyms are different from theirs. In some cases, it is like different nationalities speaking to each other in their native tongues. They perceive vocational educators as having great wisdom which they themselves may not possess. Again, there are other reasons which I will not take the time to enumerate. However, if the two groups can be brought together through effective communication, I repeat, then these fears or concerns dissipate. Remember, the first of my previous four points--listen! Break down the barrier of language differences. Eliminate the educational jargon.
3. Business and industry representatives are concerned sometimes about the amount of time a curriculum development task will take. This is especially true if the development occurs outside of the individual's normal work day. Therefore, process is critical. As with all of us, these people are very time conscious.
4. Educators need to be concerned about the level of expertise desired from business and industry. When occupational content is being developed, the person most directly involved in those job skills needs to be involved. There are cases where a president of a company is asked to serve on a curriculum development team. This may be appropriate or it may not be. The person's knowledge of the job tasks is what is important, not his or her position. This knowledge must encompass both the occupational content and the related skills needed such as basics, decision making, and leadership.
5. Importance or criticalness of the need felt by business and industry plays a major role. If vocational educators can convince the representatives of the importance of the curriculum development task, assistance will be provided. Therefore, the educator's credibility is essential. The educator must be well organized, understand his or her role and responsibilities, be specific in his or her request, and have a keen skill for follow-up and follow-through. I cannot say enough about being specific. Business/industry are not interested in spending time with someone who doesn't know what they want or cannot communicate such.
6. Business and industry representatives want to be sure that what is developed will be used and that resources are available to support such activity. They are not interested in spending their time and efforts on anything that will not be used. The vocational educator must be in a position to assure this.

As you can see, none of these are insurmountable. But, there is no simple process of working with business/industry for me to describe to you. Each situation must find its own ground. My experience has been that if business, industry, agriculture, and/or military leaders are convinced that their efforts will make a difference in the educational process, then they will gladly contribute their time, expertise, and in some cases, resources. Unfortunately, there have been too many times that the process has not worked because

vocational educators have not effectively used business and industry advisory committees. If these people have a bad experience, it is difficult to recapture them for future efforts.

What are the benefits which can be derived from involving business and industry? They are numerous. A few are:

1. Active and effective advisory councils.
2. Realistic curriculum content and materials
3. Students trained to do the jobs/tasks that are needed.
4. Active program advisory or craft committees to constantly monitor and help improve curricula.
5. Effective cooperative education programs.
6. Business and industry sponsored competency-based competitive events for vocational student organizations.
7. Jointly sponsored activities for technical updating of instructors in the competency-based content developed.
8. Identification of business and industry training needs.

What is business and industry saying these needs are? How can these be incorporated into the curriculum development process? One such need was introduced in the early stages of this talk. That is ASTD's identification for the need to ensure that vocationally enrolled youth and adults have the basic skills reinforced through a practical application process. In many instances, vocational teachers are doing this, but the curriculum content is oftentimes not clearly delineated so that students are able to draw the relationships. North Carolina is currently involved with 12 other states through the Southern Region Education Board in a consortium to improve the basic skills of students enrolled in vocational education programs. If vocational education is to be successful, a greater emphasis must be concentrated here so that students can see the transferability of their skills as they think through a job from start to finish. Closely allied to this is the tech-prep efforts. In North Carolina, business/industry has played a vital role in assisting with its development and promotion. Our vocational student organization competency-based competitive events are one of the greatest strengths in teaching decision-making skills. How can these activities be better incorporated into the instructional curriculum? This may be as close as we come at present to competency-based testing. Where are we in an organized process of evaluation or instructional management? North Carolina is in the stages of implementing a VOCATS system--Vocational Competency Achievement Tracking System. This will produce results that employers can see. Meg can share more about this with you. Is it time that a similar system is built along with each curriculum package? You have a session to discuss instructional management.

Business and industry are telling us that they also need customized training, especially for new and expanding industry. What are we doing here? What can we do? Much is already being done across the nation in this area. More needs to be done. A later topic on your agenda looks at this in more specifics. Quick start-up vocational training programs are essential to industry. The start-up lag time of prior decades is no longer a luxury. This effort is for business and industry and will definitely require their help. In North Carolina, through our postsecondary system, we are also providing what we call "focused industrial training" for existing industries. So often we concentrate on new and expanding industries, seeming to forget the mainstay of

those existing industries which are there year in and year out. They need special kinds of training also.

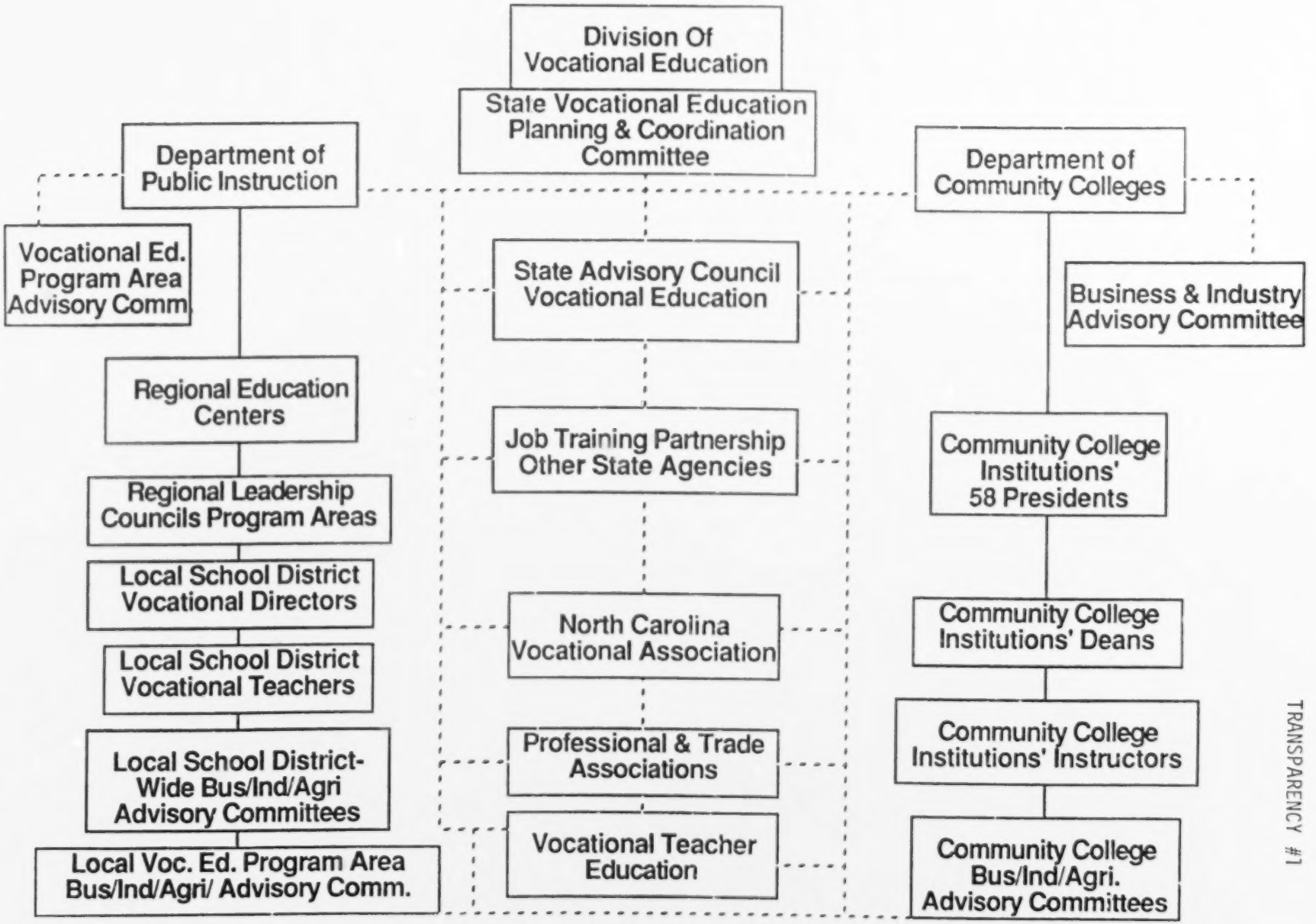
What about those high school seniors who are coming into vocational education for the first time, do we need to reinstitute the old vestibule training concept that vocational education was so famous for during the World War II years? Is there another short-term training concept? What will be the content in relation to the current and future job markets? You have as a part of this program a topic on alternative programs. Normally, through this concept we address the needs of special students. Do these one-year vocational-technical education seniors also need something similar or is this more appropriate for the session on meeting the needs of students?

Let me take just a minute as I wrap up to share how North Carolina has generated a networking process. This has been years in the making, and we are constantly updating it. Recently, this process paid great dividends when a statewide study recommended that occupational-specific courses be eliminated from the high schools. The recommendation failed because business and industry leaders told the NC Legislature that the program was sound and they did not want any changes in the structure, only more resources to make it work better.

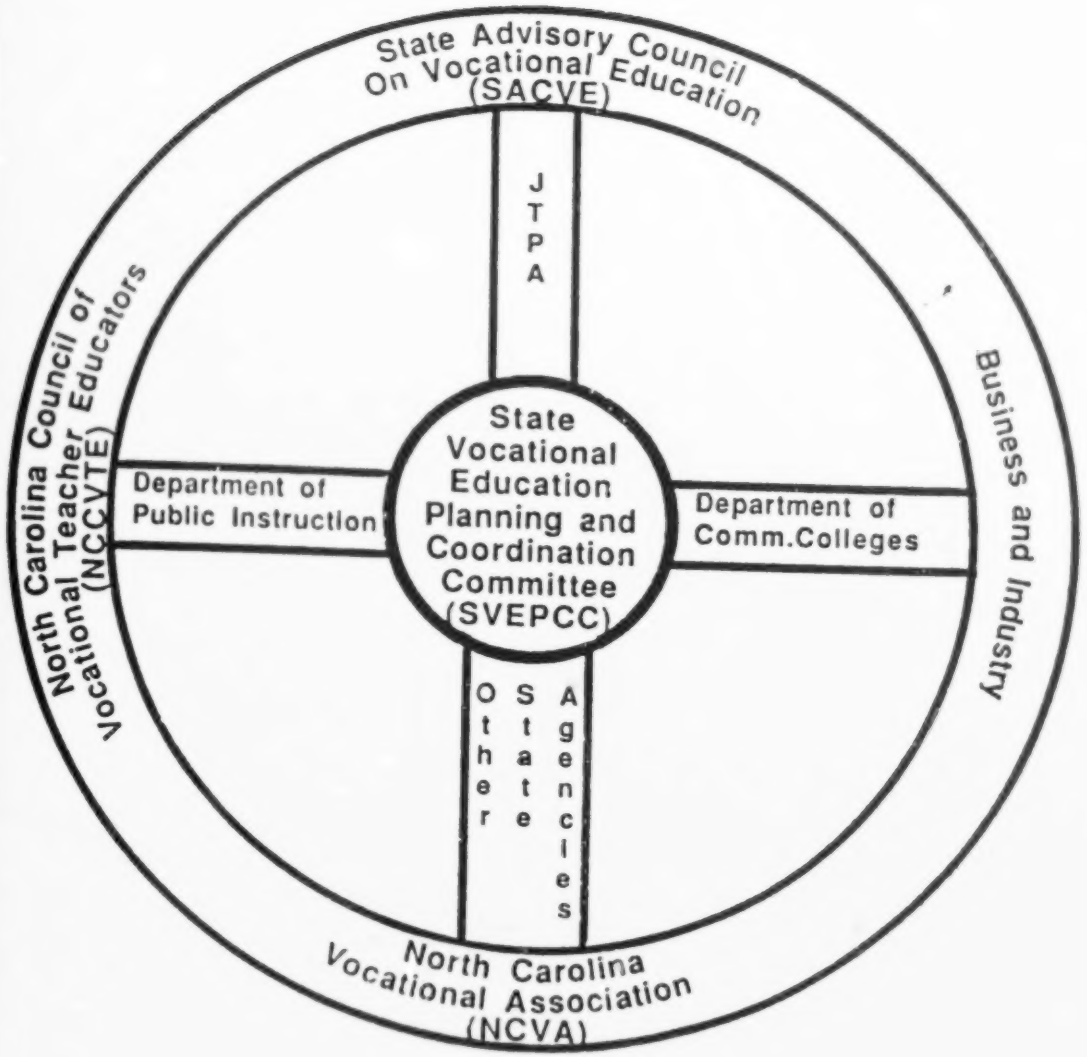
As you can see from this first transparency, the networking process is comprehensive (Transparency 1). It includes all the major actors in employment training. However, I call your attention, specifically, to the number of locations on the chart where business and industry are involved with vocational education. These are not hypothetical groups, but active ones. Through business and industry technical groups, the secondary and postsecondary systems use the DACUM process for upgrading and updating curriculum while capitalizing on materials and services made available by your curriculum network and others such as the V-TECS materials generated from job analyses with current workers actually on the job. Transparency 2 reflects the wheel which moves vocational/technical education in North Carolina. The hub consists of representatives from all of the major employment training delivery systems. The spokes are the delivery system agencies. The rim consists of the support groups which ensure that the program and products are what is needed. The wheel gets its strength and durability from the totality of communication, commitment, and cooperativeness--the three "Cs."

Yes, we have come a long way in preparing youth and adults for the workforce. While some program names remain the same, curriculum content has changed to meet current day needs. Ironically, however, this job is never done. Business and industry job task demands continue to change almost daily, more rapidly than ever in history. This means that as rapidly as we complete a task, we must be reexamining it. That doesn't worry me because I have the greatest confidence in you and thousands of other vocational educators like you across this country to meet this challenge. To quote Bruno Lamborghini, Economics Director, Olivetti Corporation, from the ASTD publication, "A company's competitive situation no longer depends on itself alone but on the quality of the alliances it's able to form." Vocational education should be, can be, and is one of these critical alliances. While working with business, industry, and the military is not the panacea to our challenge, the contributions received through this cooperative spirit will continue to make this nation and its workforce even greater. The United States' success in the world economy depends on this.

Networking Process


Division Of Vocational Education
State Vocational Education Planning & Coordination Committee
Department of Public Instruction
Department of Community Colleges
Vocational Ed. Program Area Advisory Comm
State Advisory Council Vocational Education
Business & Industry Advisory Committee
Regional Education Centers
Job Training Partnership Other State Agencies
Community College Institutions' 58 Presidents
Regional Leadership Councils Program Areas
Local School District Vocational Directors
North Carolina Vocational Association
Community College Institutions' Deans
Local School District Vocational Teachers
Professional & Trade Associations
Community College Institutions' Instructors
Local School District-Wide Bus/Ind/Agri Advisory Committees
Vocational Teacher Education
Community College Bus/Ind/Agri. Advisory Committees
Local Voc. Ed. Program Area Bus/Ind/Agri/ Advisory Comm.

TRANSPARENCY #1



TRANSPARENCY #2